As a below named inventor, I hereby declare that

the specification of which: (check one)

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD AND DEVICE FOR CONTINUOUS TREATMENT OF COPPER SULPHIDE CONTAINING ORE BY BIOLOGICAL LEACHING

	speemeane	in or mineral tomoun one,		
ri Cj		REGULAR	OR DESIGN APPLICATION	
	[]	is attached hereto.		
	[]	was filed on amended on	as application Serial No. (if applicable).	and was
		PCT FILED APPLICA	TION ENTERING NATIONAL STAGE	
	[X]	was described and claime September 7, 2000 and a	d in International application No. PCT/FF s amended on (if	R00/02471 filed on any).
her by a	eby state that I ny amendmen	have reviewed and understand the cont t referred to above.	tents of the above-identified specification, including	the claims, as amended

Tacknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

PRIORITY CLAIM

I hereby claim foreign priority benefits under 35 USC 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

PRIOR FOREIGN APPLICATION(S)

Country	Application Number	Date of Filing (day, month, year)	Priority Claimed
French /	99/11178 —	7 September 1999	Yes

(Complete this part only if this is a continuing application.)

(Application Serial No.)	(Filing Date)	(Statuspatented, pending, abandoned)



The undersigned hereby authorizes the U.S. attorney or agent named herein to accept and follow instructions from <u>Cabinet Guiu & Bruder</u> as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorney or agent named herein will be so notified by the undersigned.

As a named inventor, I hereby appoint the registered patent attorneys represented by Customer No. 000466 to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, including: Robert J. PATCH, Reg. No. 17,355, Andrew J. PATCH, Reg. No. 32,925, Robert F. HARGEST, Reg. No. 25,590, Benoît CASTEL, Reg. No. 35,041, Eric JENSEN, Reg. No. 37,855, Thomas W. PERKINS, Reg. No. 33,027, and Roland E. LONG, Jr., Reg. No. 41,949,

c/o YOUNG & THOMPSON, Second Floor, 745 South 23rd Street, Arlington, Virginia 22202.



Address all telephone calls to Young & Thompson at 703/521-2297. Telefax: 703/685-0573.

hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application are part any patent issued thereon.

name of sole or first inventor: Dominique MORIN			
(given name, family name)			
(given name, family name)	_ Date _	7/02	102
Residence: Paris Cedex 15, France	C	itizenship:	France
Post Office Address: Tour Mirabeau, 39-43, quai André Citroën F-75739 ParisCedex 15, France			
Full name of second joint inventor, if any: Paul NORRIS (given name, family name)			
Inventor's signature	Date _		
Residence: Coventry CV4 7AL, Great Britain	С	itizenship:	Great Britain
Post Office Address: Department of Biological Sciences, Gibbet Hi Coventry CV4 7AL, Great Britain	II		
Full name of third joint inventor, if any: Dietger KÖPPL (given name, family name)			
Inventor's signature	_ Date		
Residence: Düsseldorf, Germany	Ci	itizenship:	Germany

Post Office Address: Henkelstrasse 67

Full name of third joint inventor, if any: Werner SCHWAB (given name, family name) Inventor's signature _____ Date ____ Residence: Düsseldorf, Germany Citizenship: Germany Post Office Address: Henkelstrasse 67 D-40191 Düsseldorf, Germany Full name of third joint inventor, if any: Christopher BONNEY (given name, family name) Inventor's signature _____ Date _____ Residence: Essex CM8 2DE, Great Britain Citizenship: Great Britain Post Office Address: 13 Chipping Hill, Witham Essex CM8 2DE, Great Britain

As a below named inventor, I hereby declare that

the specification of which: (check one)

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD AND DEVICE FOR CONTINUOUS TREATMENT OF COPPER SULPHIDE CONTAINING ORE BY BIOLOGICAL LEACHING

	•			
		· REGULA	R OR DESIGN APPLICATION	
La Co Yal	[]	is attached hereto.		
	[]	was filed on amended on	as application Serial No. (if applicable).	and wa
Ų.		PCT FILED APPLIC	CATION ENTERING NATIONAL STAGE	
Ent time find in	[X]	was described and clair September 7, 2000 and	med in International application No. PCT/FR d as amended on (if	800/02471 filed or any).

Thereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

lacknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

PRIORITY CLAIM

I hereby claim foreign priority benefits under 35 USC 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

PRIOR FOREIGN APPLICATION(S)

Country	Application Number	Date of Filing (day, month, year)	Priority Claimed
French	99/11178	7 September 1999	Yes
·			

(Complete this part only if this is a continuing application.)

(Application Serial No.)	(Filing Date)	(Statuspatented, pending, abandoned)

The undersigned hereby authorizes the U.S. attorney or agent named herein to accept and follow instructions from <u>Cabinet Guiu & Bruder</u> as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorney or agent named herein will be so notified by the undersigned.

As a named inventor, I hereby appoint the registered patent attorneys represented by Customer No. 000466 to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, including: Robert J. PATCH, Reg. No. 17,355, Andrew J. PATCH, Reg. No. 32,925, Robert F. HARGEST, Reg. No. 25,590, Benoît CASTEL, Reg. No. 35,041, Eric JENSEN, Reg. No. 37,855, Thomas W. PERKINS, Reg. No. 33,027, and Roland E. LONG, Jr., Reg. No. 41,949,

c/o YOUNG & THOMPSON, Second Floor, 745 South 23rd Street, PATENT TRADEMARK OF Arlington, Virginia 22202. Address all telephone calls to Young & Thompson at 703/521-2297. Telefax: 703/685-0573. Thereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that Willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application er any patent issued thereon. Full name of sole or first inventor: Dominique MORIN (given name, family name) nventor's signature Citizenship: France Residence: Paris Cedex 15, France Post Office Address: Tour Mirabeau, 39-43, quai André Citroën F-75739 ParisCedex 15, France Full name of second joint inventor, if any: Paul NORRIS (given name, family name) 15.02.02 Date Inventor's signature Residence: Coventry CV4 7AL, Great Britain GRA Citizenship: Great Britain Post Office Address: Department of Biological Sciences, Gibbet Hill Coventry CV4 7AL, Great Britain Full name of third joint inventor, if any: Dietger KÖPPL (given name, family name) Inventor's signature Citizenship: Germany Residence: Düsseldorf, Germany

Page 2

Post Office Address: Henkelstrasse 67

full name of third jo (given name, family	name)		
Inventor's signature		Date	··
Residence: Düsseld	orf, Germany	Citizenship:	Germany
Post Office Address:	Henkelstrasse 67 D-40191 Düsseldorf, Germany		
Full name of third jo	int inventor, if any: Christopher BONNEY name)		
Inventor's signature		Date	
Residence: Essex Cl	M8 2DE, Great Britain	Citizenship:	Great Britain
Post Office Address:	13 Chipping Hill, Witham Essex CM8 2DE, Great Britain		

As a below named inventor, I hereby declare that

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD AND DEVICE FOR CONTINUOUS TREATMENT OF COPPER SULPHIDE CONTAINING ORE BY BIOLOGICAL LEACHING

the	specificati	on of which: (check one)		
 		REGULAI	OR DESIGN APPLICATION	
	[]	is attached hereto.		
	[]	was filed on amended on	as application Serial No. (if applicable).	and was
LJ		PCT FILED APPLICATION	ATION ENTERING NATIONAL STAGE	
	[X]	was described and claim September 7, 2000 and	ed in International application No. PCT/F as amended on (i	R00/02471 filed on fany).

hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

Lacknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

PRIORITY CLAIM

I hereby claim foreign priority benefits under 35 USC 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

PRIOR FOREIGN APPLICATION(S)

Country	Application Number	Date of Filing (day, month, year)	Priority Claimed
French	99/11178 /	7 September 1999 —	Yes

(Complete this part only if this is a continuing application.)

(Application Serial No.)	(Filing Date)	(Statuspatented, pending, abandoned)





The undersigned hereby authorizes the U.S. attorney or agent named herein to accept and follow instructions from <u>Cabinet Guiu</u> <u>& Bruder</u> as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorney or agent named herein will be so notified by the undersigned.

As a named inventor, I hereby appoint the registered patent attorneys represented by Customer No. 000466 to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, including: Robert J. PATCH, Reg. No. 17,355, Andrew J. PATCH, Reg. No. 32,925, Robert F. HARGEST, Reg. No. 25,590, Benoît CASTEL, Reg. No. 35,041, Eric JENSEN, Reg. No. 37,855, Thomas W. PERKINS, Reg. No. 33,027, and Roland E. LONG, Jr., Reg. No. 41,949,

c/o YOUNG & THOMPSON,	
Second Floor,	THOM BAIN BOW DING WHITE
745 South 23rd Street,	00466
HArlington, Virginia 22202.	PATENT TROUBLANDOR OFFICE
Address all telephone calls to Young & Thompson at 703/521-2297.	Telefax: <u>703/685-0573</u> .
hereby declare that all statements made herein of my own knowledge information and belief are believed to be true; and further that these state willful false statements and the like so made are punishable by fine or in the fittle 18 of the United States Code and that such willful false statements represent issued thereon.	ments were made with the knowledge that mprisonment, or both under Section 1001
##ull name of sole or first inventor: Dominique MORIN [2] (given name, family name)	
Thventor's signature	Date
Residence: Paris Cedex 15, France	Citizenship: France
Post Office Address: Tour Mirabeau, 39-43, quai André Citroën F-75739 ParisCedex 15, France	
Full name of second joint inventor, if any: Paul NORRIS (given name, family name)	
Inventor's signature	Date
Residence: Coventry CV4 7AL, Great Britain	Citizenship: Great Britain
Post Office Address: Department of Biological Sciences, Gibbet Hil Coventry CV4 7AL, Great Britain	II
Dull name of third joint inventor, if any: Dietger KÖPPL (given name, family name) Inventor's signature Residence: Düsseldorf, Germany	Date /4. 7. 2007 Citizenship: Germany

Form Y&T (6/00)

Post Office Address: Henkelstrasse 67

(given name, family name)	WAB
Inventor's signature	Date
Residence: Düsseldorf, Germany	Citizenship: Germany
Post Office Address: Henkelstrasse 67 D-40191 Düsseldorf, Germany	
Full name of third joint inventor, if any: Christopher B (given name, family name)	ONNEY
Inventor's signature	Date
Residence: Essex CM8 2DE, Great Britain Composition Address: 13 Chipping Hill, Witham Essex CM8 2DE, Great Britain Composition Address: 13 Chipping Hill, Witham Essex CM8 2DE, Great Britain	Citizenship: Great Britain

As a below named inventor, I hereby declare that

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD AND DEVICE FOR CONTINUOUS TREATMENT OF COPPER SULPHIDE CONTAINING ORE BY BIOLOGICAL LEACHING /

tne	specificati	on of Which: <i>(check one)</i>		
ļ.		REGULA	R OR DESIGN APPLICATION	
1 1 1 1 1 1 1 1 1	[]	is attached hereto.		
₽₽	[]	was filed on amended on	as application Serial No. (if applicable).	and was
7. 1.		PCT FILED APPLIC	CATION ENTERING NATIONAL STAGE	_
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	[X]	was described and clair September 7, 2000 and	ned in International application No. PCT/FR I as amended on (if	00/02471 filed on any).
[] Ther	eby state that I	have reviewed and understand the c	ontents of the above-identified specification, including t	he claims, as amended

Thereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended to above.

 $\overline{\mathbb{Q}}$ acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

PRIORITY CLAIM

I hereby claim foreign priority benefits under 35 USC 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

PRIOR FOREIGN APPLICATION(S)

Country	Application Number	Date of Filing (day, month, year)	Priority Claimed
French /	99/11178	7 September 1999	Yes

(Complete this part only if this is a continuing application.)

(Application Serial No.)	(Filing Date)	(Statuspatented, pending, abandoned)

The undersigned hereby authorizes the U.S. attorney or agent named herein to accept and follow instructions from <u>Cabinet Guiu</u> <u>& Bruder</u> as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorney or agent named herein will be so notified by the undersigned.

As a named inventor, I hereby appoint the registered patent attorneys represented by Customer No. 000466 to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, including: Robert J. PATCH, Reg. No. 17,355, Andrew J. PATCH, Reg. No. 32,925, Robert F. HARGEST, Reg. No. 25,590, Benoît CASTEL, Reg. No. 35,041, Eric JENSEN, Reg. No. 37,855, Thomas W. PERKINS, Reg. No. 33,027, and Roland E. LONG, Jr., Reg. No. 41,949,

c/o YOUNG & THOMPSON, Second Floor, 745 South 23rd Street, Arlington, Virginia 22202. 型Address all telephone calls to Young & Thompson at 703/521-2297. Telefax: 703/685-0573. thereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 by Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. If ull name of sole or first inventor: Dominique MORIN (given name, family name) ៊ីក្រុំventor's signature _____ Date Residence: Paris Cedex 15, France Citizenship: France Post Office Address: Tour Mirabeau, 39-43, quai André Citroën F-75739 ParisCedex 15, France Full name of second joint inventor, if any: Paul NORRIS (given name, family name) Inventor's signature _____ Date Residence: Coventry CV4 7AL, Great Britain Citizenship: Great Britain Post Office Address: Department of Biological Sciences, Gibbet Hill Coventry CV4 7AL, Great Britain Full name of third joint inventor, if any: Dietger KÖPPL (given name, family name) Inventor's signature _____ Date Residence: Düsseldorf, Germany Citizenship: Germany

Post Office Address: Henkelstrasse 67

Full name of third joint inventor, if any: Werner SCHWAB (Given name, family name) Inventor's signature	Date <u>02/15/02</u>
Residence: Düsseldorf, Germany	Citizenship: Germany
Post Office Address: Henkelstrasse 67 D-40191 Düsseldorf, Germany	
Full name of third joint inventor, if any: Christopher BONNEY (given name, family name)	
Inventor's signature	Data
Inventor's signature	Date
Residence: Essex CM8 2DE, Great Britain	Citizenship: Great Britain
Residence: Essex CM8 2DE, Great Britain Residence: Issex CM8 2DE, Great Britain Rost Office Address: 13 Chipping Hill, Witham Essex CM8 2DE, Great Britain	





As a below named inventor, I hereby declare that

the specification of which: (check one)

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD AND DEVICE FOR CONTINUOUS TREATMENT OF COPPER SULPHIDE CONTAINING ORE BY BIOLOGICAL LEACHING -

	, spoomound	70.700 (17.00)		
l-ń.		REGULA	AR OR DESIGN APPLICATION	
•	[]	is attached hereto.		
	[]	was filed on amended on	as application Serial No. (if applicable).	and was
		PCT FILED APPLIC	CATION ENTERING NATIONAL STAGE	_
	[X]	was described and clair September 7, 2000 and	ned in International application No. PCT/F d as amended on (i	R00/02471 filed on fany).
The	reby state that I any amendmen	have reviewed and understand the c t referred to above.	ontents of the above-identified specification, including	g the claims, as amended
7 5	knowledge the		is material to patentability as defined in Title 37, Code	of Federal Regulations,

PRIORITY CLAIM

I hereby claim foreign priority benefits under 35 USC 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

PRIOR FOREIGN APPLICATION(S)

Country	Application Number	Date of Filing (day, month, year)	Priority Claimed
French	99/11178—	7 September 1999 —	Yes

(Complete this part only if this is a continuing application.)

(Application Serial No.)	(Filing Date)	(Statuspatented, pending, abandoned)

The undersigned hereby authorizes the U.S. attorney or agent named herein to accept and follow instructions from <u>Cabinet Guiu</u> <u>& Bruder</u> as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorney or agent named herein will be so notified by the undersigned.

As a named inventor, I hereby appoint the registered patent attorneys represented by Customer No. 000466 to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, including: Robert J. PATCH, Reg. No. 17,355, Andrew J. PATCH, Reg. No. 32,925, Robert F. HARGEST, Reg. No. 25,590, Benoît CASTEL, Reg. No. 35,041, Fric JENSEN, Reg. No. 37,855, Thomas W. PERKINS, Reg. No. 33,027, and Roland E. LONG, Jr., Reg. No. 41,949,

c/o YOUNG & THOMPSON, Second Floor, 745 South 23rd Street, Arlington, Virginia 22202.



Address all telephone calls to Young & Thompson at 703/521-2297. Telefax: 703/685-0573.

hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application for any patent issued thereon.

Full name of sole or first inventor: Dominique MORIN			
(given name, family name)			
inventor's signature	Dat	e	
Residence: Paris Cedex 15, France		Citizenship:	France
Post Office Address: Tour Mirabeau, 39-43, quai André Citroën F-75739 ParisCedex 15, France			
Full name of second joint inventor, if any: Paul NORRIS (given name, family name)			
Inventor's signature	Date		
Residence: Coventry CV4 7AL, Great Britain		Citizenship:	Great Britair
Post Office Address: Department of Biological Sciences, Gibbet Hi Coventry CV4 7AL, Great Britain	II		
Full name of third joint inventor, if any: Dietger KÖPPL (given name, family name)			
Inventor's signature	_ Da	te	
Residence: Düsseldorf, Germany		Citizenship:	Germany

Post Office Address: Henkelstrasse 67

0

Full name of third joint inventor, if any: Werner SCHWAB (given name, family name) Inventor's signature Date Residence: Düsseldorf, Germany Citizenship: Germany Post Office Address: Henkelstrasse 67 D-40191 Düsseldorf, Germany Full name of third joint inventor, if any: Christopher BONNEY (given name, family name) Date Inventor's signature Residence: Essex CM8 2DE, Great Britain GBH. Citizenship: Great Britain ost Office Address: 13 Chipping Hill, Witham Essex CM8 2DE, Great Britain